

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003562**Date Inspected:** 21-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Hanjie Li**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Assembly**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Robert Vatcher, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following: The weather today is 27C and clear.

Orthotropic Box Girder (OBG) Fabrication

QA performed ultrasonic testing (UT) in tower shop bay 8 on the following 30 mm to 12 mm Orthotropic Box Girder Floor Beam piece marks to support the required non destructive testing per the contract documents. FB-002-007-026, FB008-007-026, FB008-008-026, FB015-016-026 and FB015-015-026. Please see the UT report TL-27 generated on this date.

QA also performed a cursory review of the welding techniques while in OBG Bay 8 on Floor Beams FB042-001-032. QA observed QC representatives Hanjie li & Tang You Qing perform amp, volt and travel speed measurements for the 30mm to 12mm full penetration joint. QC also pointed out the between inner weld passes the one 2 mm diameter porosity indication was noted at the start/ stop juncture at the termination point of the weldment. QC directed the welding assistants to grind said indication out prior to further subsequent weld layers.

QA performed an in process review of QC documents that were on the shop floor for saw welding on piece mark FB016-016-033 weld and FB016-016-015 30 mm to 12 mm thick transitioning welds. QA observed measured preheat at 20C, amps at 563, volts at 29.2 and travel speed at 507 mm per minute and each parameter appears to be

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

in accordance with WPS-B-T-2221-B-L2C-S-2. According to QC representative Hanjie Li for AB/F the new revision of the WPS will be out on the shop floor today. QA mentioned that he will wait for the arrival of the new revision, however AB/F and ZPMC QC left the facility without doing as such. QA spoke with ZPMC QC Thomas and he mentioned that he would make sure that the WPS with corrected revision would be out on the shop floor this morning, this date.

The above mentioned items, as observed and or examined by QA, appear to be in conformance with the contract documents.

Summary of Conversations:

See above Items Observed for summary of conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Vatcher,Robert	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
